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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,227	09/18/2003	Colleen Poerner	2002P15657US01	8462
7590 Siemens Corporation Intellectual Property Department 170 Wood Avenue South Iselin, NJ 08830			EXAMINER TERMANINI, SAMIR	
			ART UNIT 2178	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			02/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/666,227	POERNER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Samir Termanini	2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### BACKGROUND

1. This action is responsive to the following communications: RCE (Request for Continued Examination) filed on 2/2/2007.

2. Claims 1-39 are pending in this case. Claims 1 and 33-34 are in independent form. Claims 1, 14, 19, 20, 23, 25, 27, 29, 31, 33, and 34 are currently amended. Claims 35-39 are new.

### CLAIM REJECTIONS - 35 U.S.C. § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-12 and 14-39 are rejected under 35 U.S.C. 102(b) as being anticipated by *SIMATIC Process Control System PCS 7 WinCC Basic Process Control*, 2000 (hereinafter "*PCS7*").

As to independent claim 1, *PCS7* teaches a method for configuring HMI user screen navigation ("project navigation window" pp. 2-2, line 3) comprising the activities of: providing an HMI screen navigation editor to a user ("Following Editors/Wizards will be available to you..." pp. 2-2, line 3); via the HMI screen navigation editor

("Picture Tree Manager" pp. 2-2, 2<sup>nd</sup> row in table), enabling the user to create a collection comprising a linked hierarchically organized plurality of HMI screen nodes ("The Picture Tree Manager is used to manage a hierarchy of systems, sub-systems, function names, and Graphics Designer pictures." pp. 2-2, 2<sup>nd</sup> row in table); responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and another node ("If you insert a new container in an existing node..." pp. 5-16), automatically adjusting a position of said parent node (e.g. "the hierarchy expands by one level" pp. 5-16, *see note at bottom of page*); and rendering the collection to the user (i.e. "Displayed in the upper left part of the hierarchy window is the hierarchy of the systems, subsystems and pictures as a tree." pp. 5-9, under Data Window).

Specifically addressing the newly added limitation: responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a leaf node of said parent node ("If you insert a new container in an existing node..." pp. 5-16), automatically adjusting a position of said parent node repeatedly until no collisions are detected ("The command "Arrange Picture Icons Automatically" allows you to turn on the automatic arrangement of the pictures in the selection window. If the option is activated, the pictures will be arranged automatically." pp. 5-7; *see also* "the group display hierarchy of all WinCC pictures will be calculated over again every time the Picture Tree Manager is saved." Pp. 5-7).

As to the limitation: "said collision detected based upon a calculated position of said parent node and a calculated position of said leaf node." Applicant's specification

makes clear that calculating a position of a 'vertical tree' "...is easy, because it depends only on the level...Similarly, for a horizontal tree...depends only on the level." (p. 20, para. 79). *PCS7* teaches, "When you insert new containers into an existing node, the subhierarchy of that node is expanded by one level." (pp. 5-12)(emphasis added) being based on calculated positions ("While holding down the left mouse button, drag the container and its subordinate containers to the new position." pp. 5-17; see also "into the new position with the "Insert After", "Insert Before" or "Insert Into Node" menu commands." Pp. 5-18; see also "Position X Position Y" pp. 6-1; see also "position them as desired." Pp. 10-10)(emphasis added).

As to dependent claim 2, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving from the user a specification of an HMI root screen node ("The hierarchy window contains a root node that contains the name of the project." pp. 5-15, under Creating a Hierarchy).

As to dependent claim 3, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving from the user a specification of an HMI child screen node ("Create...by means of drag&drop...pop-up menu...menu bar..." pp. 5-15, under creating a Hierarchy); the HMI child screen node a descendent of an HMI root screen node ("...a root node..." pp. 5-12, under Creating a Hierarchy).

As to dependent claim 4, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving from the user, a specification of a relationship between two of the plurality of HMI screen nodes (e.g. via the 'Insert After', 'Insert Before' or 'Insert Into Node' menu commands." pp. 5-18, under Pop-Up Menu).

As to dependent claim 5, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving from the user a specification of an organization of the collection (e.g. "The hierarchy can be changed by moving individual nodes or entire parts of the hierarchy. This can be performed within a level or the levels may be changed." pp. 5-17, under Changing the Hierarchy).

As to dependent claim 6, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving from the user a specification of a hierarchy of the collection ("You can create the hierarchy in the following ways: - Create the hierarchy by means of drag&drop - Create the hierarchy via the pop-up menu -Create the hierarchy via the menu bar -Create the hierarchy - change the container name", pp. 5-15, under Creating a Hierarchy).

As to dependent claim 7, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: automatically ("Automatically", pp. 5-7, under view menu) determining an arrangement of the collection (e.g. "Arrange Picture Icons Automatically" pp. 5-7, under view menu)(emphasis added).

As to dependent claim 8, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving from the user a specification of a size the plurality of HMI screen nodes ("View' 'Large Symbols'" pp. 5-8 under Standard Toolbar; *see also* "Picture properties, [permitting the user to] change [the] size of a selected picture...", pp. 5-10, last bulleted item).

As to dependent claim 9, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: zooming a rendition of the plurality of HMI screen nodes ("If the preview window is resized, the displayed picture will adapt to the new dimensions." pp. 5-7, under Preview)

As to dependent claim 10, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: panning a rendition of the plurality of HMI screen nodes (see the scroll bar, in fig. 5.1.3 on pp. 5-9).

As to dependent claim 11, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: collapsing a rendition of the plurality of HMI screen nodes (see collapsing minus sign e.g. to the left of e577d6.MCP in fig. 5.1.3 on pp. 5-9).

As to dependent claim 12, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: expanding a rendition of the plurality of HMI screen nodes (e.g. "(+) icon" pp. 5-13, under 5.2.3; *see also* e.g. "...hierarchy level is expanded...", pp. 5-5, under Copy).

As to dependent claim 14, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: rendering a portion of a plurality of HMI screen nodes (*See* fig. 5.3 on pp. 5-14, where only a portion of the screen nodes are displayed).

As to dependent claim 15, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: enabling the user to revise the collection ("The hierarchy can be changed by moving...entire parts of the hierarchy." pp. 5-17, under Changing the Hierarchy).

As to dependent claim 16, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: enabling the user to revise at least one of the plurality of HMI screen nodes ("The hierarchy can be changed by moving individual nodes..." pp. 5-17, under Changing the Hierarchy).

As to dependent claim 17, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving a user specification of an attribute of an HMI screen node ("Picture properties, such as change date and size of a selected picture, can be displayed." pp. 5-10, under 5.2).

As to dependent claim 18, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving a user specification of an attribute of the collection ("Group Value' attribute of the group display." pp. 6-5, under Connecting a Group Display to a Picture).

As to dependent claim 19, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving from a user a specification of a link between two HMI screen nodes ("You can carry out the following activities with the Picture Tree Manager:...create a relationship between the pictures created in Graphics Designer" pp. 2-4, under 2.2).

As to dependent claim 20, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving from a user a specification of a link from a first HMI screen node to a second HMI screen node ("Cut and paste a picture from the selection window or move it using drag-and-drop to insert a picture into a container in



the hierarchy." pp. 5-10, under 5.2), the second HMI screen node non-familial to the first HMI screen node (*See* fig. 5.1.3 where the unassigned containers and pictures are in the selection window, pp. 5-9, fig. 5.1.3).

As to dependent claim 21, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: rendering a link between two HMI screen nodes (*See* fig. 5.1.3 where the picture preview contains a rendering of a link between two screen nodes).

As to dependent claim 22, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: rendering a link from a first HMI screen node to a second HMI screen node ("Pictures that you remove from the hierarchy...are inserted in the selection window automatically." pp. 5-10, under 5.2, 2<sup>nd</sup> to last bullet), the second HMI screen node non-familial to the first HMI screen node (*See* fig. 5.1.3 where the unassigned containers and pictures are in the selection window, pp. 5-9, fig. 5.1.3).

As to dependent claim 23, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving from a user a specification of a navigation control comprising at least one HMI screen link ("...assignment of pictures to the system and creates an order between the pictures that are created in Graphics Designer." pp. 5-1, under 5, 3<sup>rd</sup> bullet).

As to dependent claim 24, *PCS7* further teaches the limitations of claim 1, addressed above, further comprising: rendering a navigation control comprising at least

one HMI screen link ("In Runtime, picture selection by means of navigation through the hierarchy tree..." pp. 5-1, under 5, 4<sup>th</sup> Bullet).

As to dependent claim 25, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving from a user a specification of a navigation control comprising at least one button ("for example, buttons with a picture selection of '@CONFIG.PDL.'" pp. 7-11, under 7.4 - Visualizing Monitoring in Runtime).

As to dependent claim 26, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: rendering a navigation control comprising at least one button ("the picture selection for the plant picture is already available for a button in the set of key commands." pp. 7-11, under 7.4 - Visualizing Monitoring in Runtime).

As to dependent claim 27, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving from a user a specification of a navigation control comprising at least one button (e.g. '@CONFIG.PDL.'" pp. 7-11, under 7.4 - Visualizing Monitoring in Runtime), the at least one button comprising an HMI screen link ("the picture selection for the plant picture is already available for a button in the set of key commands." pp. 7-11, under 7.4 - Visualizing Monitoring in Runtime).

As to dependent claim 28, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: rendering a navigation control comprising at least one button ("buttons" pp. 7-11, under 7.4 - Visualizing Monitoring in Runtime), the at least one button comprising an HMI screen link ("used to access the WinCC pictures of the current project...of all connected monitors" pp. 3-7, 1<sup>st</sup> & 2<sup>nd</sup> paragraphs).

As to dependent claim 29, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving from a user a specification of a navigation control comprising at least one button (e.g. '@CONFIG.PDL.'" pp. 7-11, under 7.4 - Visualizing Monitoring in Runtime), the at least one button comprising an HMI screen link ("used to access the WinCC pictures of the current project...of all connected monitors" pp. 3-7, 1<sup>st</sup> & 2<sup>nd</sup> paragraphs), the at least one button activatable via a user-specified soft key (e.g. "via user-defined buttons." pp. 9-2, under Accessing the "Storage" User Interface in WinCC Runtime).

As to dependent claim 30, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: rendering a navigation control comprising at least one button (see fig. 3-7 on the middle of pp. 3-7), the at least one button comprising an HMI screen link ("used to access the WinCC pictures of the current project...of all connected monitors" pp. 3-7, 1<sup>st</sup> & 2<sup>nd</sup> paragraphs), the at least one button activatable via a user-specified soft key (e.g. "via user-defined buttons." pp. 9-2, under Accessing the "Storage" User Interface in WinCC Runtime).

As to dependent claim 31, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving from a user a specification of a navigation control (e.g. '@CONFIG.PDL.'" pp. 7-11, under 7.4 - Visualizing Monitoring in Runtime) comprising at least one element activatable via a user-specified soft key (e.g. "via user-defined buttons." pp. 9-2, under Accessing the "Storage" User Interface in WinCC Runtime).

As to dependent claim 32, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: rendering a navigation control (e.g. "buttons with a picture selection of '@CONFIG.PDL.'" pp. 7-11, under 7.4 - Visualizing Monitoring in Runtime) comprising at least one element activatable via a user-specified soft key (e.g. "via user-defined buttons." pp. 9-2, under Accessing the "Storage" User Interface in WinCC Runtime).

As to independent claim 33, the only difference between claim 1 and this claim, is that the former claims the same process that defines the product of latter. *PCS7* teaches a machine-readable medium containing instructions ("on the product CD-ROM" pp. 9-30, last sentence) for causing a machine to carry out the method of claim 1. Therefore, this claim is rejected for the same reasons set forth in treatment of claim 1.

As to independent claim 34, the only difference between claim 1 and this claim, is that the former claims the same process that defines the machine of latter. *PCS7* teaches a machine (e.g. "multi-client" or "Server" pp. 1-2, bottom of page; *see also* fig. 1.1 on 1-2) for a machine taught to be capable of carrying out the method of claim 1. Therefore, this claim is rejected for the same reasons set forth in treatment of claim 1.

As to dependent claim 35, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving from the user ("Edit via drag-and-drop" p. 2-4), a user-drawn relationship indication line between two of the plurality of HMI screen nodes ("create a relationship between the pictures created in Graphics Designer" p. 2-4).

As to dependent claim 36, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: automatically determining an arrangement of the collection based upon a user specified upper limit on inter-generational spacing (“The user can freely configure the..attribute...height” p. 6-1).

As to dependent claim 37, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: receiving a user specification of an attribute of an HMI screen node, the attribute adapted to change a background color of a screen (“Background Color”, pp. 6-7; see also “The background color change” p. 10-9).

As to dependent claim 38-39, *PCS7* teaches the limitations of claim 1, addressed above, further comprising: rendering a navigation control comprising a button (“The previous picture is selected using the button shown...” p. 3-8; see also “Navigation keys” p. 13-1) adapted to display a previously viewed screen in a sequence of screens (“allows you to go back to a previously displayed picture” p. 3-8) or adapted to display a previously viewed screen in a sequence of screens in a sequence of screens (directional navigation “buttons” p. 3-7).

CLAIM REJECTIONS - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over *PCS7* in view of *Spriggs et al.* (US Pat. No. 6,421,571).

As to dependent claim 13, *PCS7* teaches the limitations previously discussed with respect to claim 1 above. *PCS7* does not teach rotating a rendition of a plurality of HMI screen nodes. *Spriggs et al.* is cited for teaching rotating a rendition of a plurality of HMI screen nodes ("objects in the instrument view 174 are preferably capable of being rotated" col. 17, lines 5-10). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have rotated the rendition of a plurality of HMI screen nodes as taught by *Spriggs et al.* with the method for configuring HMI user screen navigation taught by *PCS7* because *Spriggs et al.*: (1) is directed to the same problem of viewing, editing and navigating (col. 16, line 60 to col. 17 line 10) a hierarchical instrument tree view (col. 16, line 48); (2) is in the same field of endeavor of industrial plant asset management systems (col. 1, lines 5-10); and (3) expressly suggests that being able to rotate the rendition increases the value of the view to the user ("...thereby providing value to the user view..." col. , lines 8-10).

RESPONSE TO ARGUMENTS

7. Applicant's arguments, see Sec. I, p. 8, filed 1/5/2007, with respect to the 35 U.S.C. 102(b) Rejections cited by the Examiner in the previous Office Action (dated 11/6/2006), have been fully considered but they are not persuasive.

The Applicant has provided an deliberate and explicit definition for a term: "collision" in the specification ("collision--a visual intersection or overlap of at least two nodes." para. [0030]). Therefore, that definition will be controlling in the interpretation of the term as it is used in the claim. *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999).

The newly added limitation, "...responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a leaf node of said parent node..." is taught at pp. 5-16 of *PCS7* ("If you insert a new container in an existing node...").

The newly added limitation, "...automatically adjusting a position of said parent node repeatedly until no collisions are detected..." is taught at pp. 5-7 of *PCS7* ("The command "Arrange Picture Icons Automatically" allows you to turn on the automatic arrangement of the pictures in the selection window. If the option is activated, the pictures will be arranged automatically." pp. 5-7; see also "the group display hierarchy of all WinCC pictures will be calculated over again every time the Picture Tree Manager is saved." Pp. 5-7).

The newly added limitation, "...said collision detected based upon a calculated position of said parent node and a calculated position of said leaf node." Is taught at pp. 5-12 of *PCS7* ("When you insert new containers into an existing node, the subhierarchy of that node is expanded by one level." pp. 5-12) and at pp. 5-17, 5-18, 6-1, and 10-10, ("While holding down the left mouse button, drag the container and its subordinate containers to the new position." pp. 5-17; see also "into the new position with the "Insert After", "Insert Before" or "Insert Into Node" menu commands." Pp. 5-18; see also "Position X Position Y" pp. 6-1; see also "position them as desired." Pp. 10-10).

8. Applicant's arguments, see Sec. II, p. 9, filed 1/5/2007, with respect to the 35 U.S.C. 103(a) Rejections cited by the Examiner in the previous Office Action (dated 11/6/2006), have been fully considered but they are not persuasive because the newly added limitations are taught by *PCS7*, addressed above (in paragraph 7 of this Office Action).

#### CONCLUSION

9. Although not relied upon, the following prior art is made of record because it considered pertinent to applicant's disclosure:

- [1] Ryan et al. (US 6477435 B1) for teaching a development tool for control programs for industrial controllers develops an area model detailing equipment and phases of operation of the equipment of a controlled process.
- [2] Havner et al. (US 6854111 B1) for teaching visualization program fragments sharing the same control variables in library files.



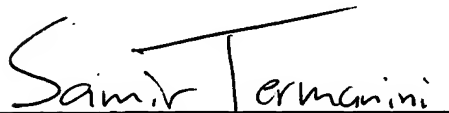
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- [3] Elsbree et al. (US 7017116 B2) for teaching a software development toolkit automates and eases the task of generating graphical human-machine interfaces that are interactive control modules or software necessary to control a process.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Samir Termanini whose telephone number is (571) 270-1047. The Examiner can normally be reached from 9 A.M. to 4 P.M., Monday through Friday.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Stephen S. Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Samir Termanini  
Patent Examiner  
Art Unit 2178



STEPHEN HONG  
SUPERVISORY PATENT EXAMINER